

TECHNICAL DATA

Fluke 3563 Analysis Vibration Sensor system















Key features

- Enables condition monitoring and vibration analysis
- Insightful data analysis from the eMaint Condition Monitoring software
- Long vibration sensor battery life via smart battery management
- Custom & auto vibration measurement thresholds based on machine type
- Dual network capabilities as Ethernet and Wi-Fi vibration sensor

Product overview: Fluke 3563 Analysis Vibration Sensor system



The Fluke 3563 vibration sensor combines a high-frequency piezoelectric sensor and insightful software data analytics. Maintenance teams can perform regular <u>vibration monitoring</u> and vibration analysis for a facility's production-critical assets. The wireless vibration sensor has smart battery management that lets maintenance pros determine the data transmission rate and adapt and extend the sensor battery's life while still getting the data required.

The vibration sensor's eMaint Condition Monitoring software application includes customizable frequency band measurements, automatically generated thresholds based on asset details, trend visualization, and frequency identification graphs. These views let users determine machine faults and their causes. With this vibration analysis,



users can evaluate critical next-step actions.

Combined with setup and vibration training services, the Fluke 3563 is an <u>industrial vibration sensor</u> that can be seamlessly implemented into existing plant operations. As a result, maintenance teams gain the efficiency benefits promised by condition monitoring and practical leverage of the IIoT. The Fluke 3563 Analysis Vibration Sensor system is a solution that seamlessly combines three parts: hardware, software, and service. The one-on-one setup process includes personalized assistance from Fluke Reliability experts, ensuring successful configuration, commissioning, and installation.

Essential Vibration Hardware Features

- The <u>wireless vibration sensor</u> captures the following measurements:
 - Vibration measurements that include RMS and peak-to-peak (supported measurement quantities are velocity and acceleration)
 - Time waveform
 - Temperature
- The measurements are sent to the gateway by a short-range wireless technology standard
- A battery-operated triaxial vibration sensor that leverages two MEMS vibration sensors and a high-frequency, high-resolution piezoelectric vibration sensor
 - The two MEMS vibration sensors are used for low-frequency vibration measurements in the X and Y orthogonal axes
 - The <u>piezoelectric sensor</u> measures both low- and high-frequency vibrations in the Z-axis, which is the main sensing axis
- Dual network capabilities: Wi-Fi and Ethernet
- A unique smart battery-management capability that allows for a user-determined data transmission rate, maximizing battery life

Key eMaint Condition Monitoring software features for Fluke 3563 vibration sensors

- Dashboard: Displays the overall condition of assets from associated devices, with summary-level data visible by location.
- Visualized vibration measurements: Vibration monitoring of assets at a glance by visualizing the following data:
 - Overall velocity and acceleration
 - o Temperature
 - Acceleration and velocity bands
 - Bearing Severity Overalls
- Vibration trending graphs: Graphing supports a user's analysis and provides access to measured parameters, including trend charts.
- Thresholds and Event Notifications
 - o Leverage customizable and auto-generated thresholds based on asset details
 - Warning notifications are received via email and/or through the eMaint Condition Monitoring.
- Overview of Asset Event History: Users can add/edit asset information and review the history of monitored changes and associate device information in eMaint Condition Monitoring.

Services for vibration sensors

Fluke Reliability's Remote Condition Monitoring service for the 3563 vibration sensor helps maximize your condition monitoring program, giving direct access to our in-house experts with decades of experience.

Your team will get access to data analytics, asset status insights, and guided recommendations so you can detect faults

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early, improve maintenance planning, reduce costs, extend machine lifespan, and avoid unplanned downtime.

Specifications: Fluke 3563 Analysis Vibration Sensor system

Data Transmission		
Transmission interval	Configurable, minimum default is every 10 minutes	
Range		
Frequency range	2 Hz – 10,000 Hz Z (0 Hz – 1,000 Hz X, Y)	
Amplitude range	z-axis: +/- 50g; x- and y-axis: +/- 16g	
Sampling frequency	18.5 – 62.5 kHz	
	Temperature	
Measurement range	-20°C to 85°C (-4°F to 185°F)	
Storage range	-20°C to 85°C (-4°F to 185°F)	
Mechanical		
Size	(D x H) 68mm x 53.4mm	
Weight	199.5g (145g without baeries)	
Ingress protection class	IP67	
Shock Limit	5000 g peak	
Power	6 x 3.6V 1/2 AA Li-SOCl 2 baery Baery lifetime: At least 1 year (Every 10 minutes overalls / Every 60 minutes 2 sec. TWF)	
AD Conversion	24 bit	
Wireless communication (sensor to gateway)		
Radio Frequency	2.4 GHz ISM band according to IEEE 802.15.1	
Range (line of sight)	Up to 100 meters, depending on environment	

Fluke 3503 Wireless Gateway

Power supply options			
AC main power	AC input 85-264 VAC, 0.35A/115V, 0.25A / 230V, 47-63 Hz		
Power-Over-Etheet	Compliant with IEEE 802.3af		
Wireless communication			
WIFI:	IEEE 802.11 ac/a/b/g/n		
WIFI Security:	WPA/WPA2		
Etheet:	10/100/1000 MBits/s		
Mechanical			
Ingress protection class	IP67		
Temperature	Operation: -20°C to 60°C (-4°F to 140°F) Storage: -40°C to 80°C (-40°F to 176°F)		



Size	(L x W x H) 160mm x 160mm x 90mm
Weight	948.5 g

Fluke 3720 and 3721 Mounting Adapters

Screw mount		
Size	(D x H) 68mm x 21mm	
Weight	187.9 g	
Epoxy mount		
Size	(D x H) 68mm x 21mm	
Weight	187.9 g	



Ordering information



Fluke 3563 Analysis Vibration Sensor 16KIT

Fluke 3563 Analysis Vibration Sensor 16KIT

Includes:

- 16 vibration sensors
- 16 software subscriptions
- 2 gateways
- Remote or onsite onboarding services

Analysis Vibration Sensor 8PK*

Analysis Vibration Sensor 8PK

Includes:

- 8 sensors
- 8 software subscriptions

*Available following an initial purchase of the 16KIT

Analysis Vibration Sensor Screw Mount Plate 8PK

Analysis Vibration Sensor Screw Mount Plate 8PK

Includes:

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- 8 Screw Mounting Plates
- 1 Adapter Key

Analysis Vibration Sensor Epoxy Mount Plate 8PK

Analysis Vibration Sensor Epoxy Mount Plate 8PK

Includes:

• 8 Epoxy Mount Plates

Fluke 3503 Wireless Gateway

Fluke 3503 Wireless Gateway

The system gateway is the central bridge between any 3563 Analysis Vibration Sensor and the Data Platform cloud server. The gateway collects measurement data from the sensors and transfers the data to the Data Platform. A single gateway communicates with up to 20 sensors.



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